

WORKforce

Utah

Higher Education & the Workforce

In 2006 a good education is no longer just a way for an individual to get ahead. It is also, and increasingly, the best way a state can get ahead – and therefore a real economic priority. A college degree confers specific, calculable benefits on a state’s citizens: the average lifetime income of an individual with a bachelor’s degree is \$2.1 million, compared to \$1.2 million for those with just a high school diploma. But the benefits realized by the state are just as impressive as those that an individual sees. Not only does a state with a well-educated populace see increased tax revenues from its (better-paid) citizens, it is also able to use the education level of its citizens as a powerful lure for business and industry – a way to build its economy overall.

For that to happen, however, a state must make sure that all of its citizens have access to a college education. Businesses are no longer simply looking for a small, well-educated elite but instead need to be able to draw upon a labor pool that’s both broadly educated and diverse. In fact, a report from the Business-Higher Education Forum, a coalition that includes some of the country’s top corporate CEOs, states that an educated and diverse population is an essential competitive asset in today’s global economy.

In the decade leading up to 2012, Utah will see the second highest rate of job growth in the U.S. and an increasing demand for well-educated employees. Technology-related professions will see their ranks swell by 43 percent, while healthcare will grow by 42 percent. Teachers’ numbers will increase by 37 percent: nearly 24,000 new jobs for educators (including librarians) will need to be filled. Managers will experience a 21 percent increase; when you add in retirements, over 3,800 managerial openings will need to be filled each year. The growth of these sectors is good news for Utah’s citizens, since wages for jobs in these areas are significantly higher than the average for Utah in general. But entry into these jobs comes with a price tag: most positions in these fields will require a bachelor’s degree or higher. The question for Utah and other states is how, in a time of tight budgets, to meet the increasing demands on higher education and thereby meet the needs of an increasingly sophisticated economy.

The Western Interstate Commission for Higher Education (WICHE) has had workforce issues at the top of its agenda since its creation in the 1950s. In fact, WICHE was launched specifically to address the shortage of workforce-training opportunities in medicine, dentistry, and other professional fields. Today, WICHE offers a slew of undergraduate, graduate, and professional options that help the West’s states educate and train their citizens, building their economies in the process.

Utah’s Occupational Outlook

Employment in Utah (including hourly and salaried jobs and self-employment) is projected to grow by 31 percent from 2002 to 2012, adding 365,830 new jobs to the state’s economy and growing the workforce from 1,184,040 to 1,549,870. The rate of growth is more than double the 15 percent increase projected for the nation as a whole.

Growth will occur in virtually all sectors of Utah’s economy, with the largest number of new jobs being generated in lower-paying fields such as retail sales, food preparation and service, and cashiering. However, Utah’s “top jobs” – those with the strongest employment outlook and high earnings – are all professional positions (see Table 1).

Table 1. Utah’s Top Jobs*

Biochemists	Database Administrators
Medical Scientists	Physical Therapists
Comp. Sftwr. Engineers	Pharmacists
Physician Assistants	Dental Hygienists
Network/Comm. Analysts	Architects

* Jobs with the strongest employment outlook (2002-12) and high wages.

Source: Utah Department of Workforce Services.

All of the top jobs listed on Table 1 require considerable education and training. One – dental hygienist – requires an A.A. degree, while all the rest demand at least a bachelor’s and often a professional degree.

Utah will see strong growth in a variety of sectors in the decade leading up to 2012. Three of the state’s top jobs are in tech-related fields: network systems and data communication analyst, computer software engineer, and database administrator. Overall, the state is projected to add over 11,000 new jobs in these and other technical fields.

Healthcare will also see big increases: over 13,000 new jobs will be created in a variety of fields, from dentistry to pharmacy. The demand for registered nurses will see a 45 percent increase: about 10,000 R.N.s will need to be hired for new posts and to replace those who leave the field. Physician assistants will see a 61 percent increase in their ranks, with some 300 being hired for new and replacement positions. Pharmacists will log growth of 67 percent, while physical therapists will experience a 55 percent increase. Utah will also experience a strong demand for new dentists and occupational therapists. One reason for the increasing demand for health professionals of all stripes: the aging of the state’s population. Utah is seeing significant growth in its older population: in 2005, 12 percent, or over 293,000, of its citizens were estimated to be 60 or older.

Two other essential professionals, managers and teachers, will also see a large number of hires in the decade leading up to 2012, due to new job creation and the need for replacement workers. Over 38,000 managers of all types – from CEOs and operations managers to supervisors – will be required to fill new and replacement positions; in fact, CEO is the state’s top job, projected to see 33 percent growth. Large numbers of teachers at every level from kindergarten through college will be needed. At the primary and secondary levels, close to 11,000 new jobs will be created, with the biggest chunk (over 3,900) slated for elementary school teachers. Some 4,500 new slots in postsecondary education are projected to open up during the decade. In all, more than 2,400 teachers will have to be hired each year to cover all of education’s new jobs and replacement positions.

As Utah’s economy changes, so do the kinds of jobs available to Utah’s citizens. The projections indicate that plenty of jobs will be available for those without formal training beyond high school. However, wages in the sectors hiring those workers – retail sales and food service will be top employers – fall significantly below the statewide mean (\$31,692 a year), and many positions don’t provide even a living wage. Over the next several years, workers who have the most education and training will have the best opportunity for high-paying jobs in growing sectors. In addition, a number of professions requiring education beyond the bachelor’s degree are expected to see moderate to strong growth (see Table 2).

Table 2
Utah Professional Employment Projections, 2002-2012

Profession	Number		% Change	Total Openings*
	2002	2012		
All professions	1,184,040	1,549,870	31%	64,630
Architects	730	1,170	60%	500
Dentists	2,080	2,500	20%	800
Librarians	1,040	1,270	14%	500
Occupational Therapists	490	740	51%	300
Optometrists	260	340	31%	200
Pharmacists	1,870	3,120	67%	1,600
Physical Therapists	940	1,430	52%	600
Physician Assistants	410	660	61%	300
Physicians and Surgeons	2,500	3,310	32%	1,300
Podiatrists	60	80	33%	20**
Registered Nurses	15,180	22,000	45%	10,000
Veterinarians	430	550	28%	200

* Includes new jobs and replacements, rounded.

**Growth only.

Source: Utah Department of Workforce Services.

UTAH & WICHE's Student Exchange

In 2002, 47 percent of Utah's new high school grads enrolled in college — and 9 percent of them went to school out of state, according to WICHE's Policy Indicators for Higher Education (www.wiche.edu/Policy/FactBook). One of the most economical ways for them to do that: our Western Undergraduate Exchange (WUE), which allows students to enroll in out-of-state institutions at a reduced tuition level (150 percent of resident tuition). Over 750 Utah students enrolled in WUE in 2005, saving over \$3.4 million and working toward degrees in fields that are essential to Utah's economy. Some of the most popular fields of study for Utah students: nursing, biology, and business administration.

WICHE's Professional Student Exchange Program (PSEP) offers students opportunities to train outside of their home state in 14 highly competitive fields: architecture, dentistry, graduate library studies, medicine, nursing, occupational therapy, optometry, osteopathic medicine, pharmacy, physical therapy, physician assistant, podiatry, public health, and veterinary medicine. In Utah, employment projections in all these fields are on the rise (see Table 2). Through PSEP, Utah students are studying to be veterinarians, optometrists, and podiatrists. In general, at least 60 percent of PSEP students return to their home state to practice.

Utah students also participate in the Western Regional Graduate Program (WRGP), which offers them the chance to engage in graduate studies and includes 175 distinctive programs in 14 states, such as education, nursing, and business. On the horizon is a distance learning option, NEON (the Northwest Educational Outreach Network), which will provide electronically delivered degree programs in high-demand disciplines, such as a Ph.D. in nursing and a graduate certificate in supply chain management.

Six Fast-Track Fields

The Outlook for Utah & the Nation

From 2002 to 2012, the economy in Utah and the nation will continue generating jobs for workers at all levels of education and training. But there will be an increasing demand for employees with at least some postsecondary education, preferably a bachelor's degree. Nationwide, during a decade that will witness large numbers of baby boomers moving into retirement, 21.4 million new jobs will be created, an increase of 15 percent. However, in some fields, the increase will be more than triple that. Across the country, competition will be especially stiff for physician assistants, who will see their ranks grow by 49 percent, as well as for physical and occupational therapists (whose fields will experience growth of 35 percent) and pharmacists (30 percent). More than 620,000 new nurses will be needed (an increase of 27 percent) and some 14,500 new veterinarians. Below is a debriefing that focuses on trends in some of Utah's — and the nation's — fast growing professions.

Registered Nurses. Nursing is #1 in terms of growth among occupations requiring some postsecondary education: it will make more new hires in Utah in the decade leading up to 2012 than any other job in that category. Working in the largest healthcare profession, registered nurses held 15,180 jobs in 2002 in Utah; that number will grow to 22,000 by 2012, a 45 percent increase. Demand for R.N.s is expected to be high for a number of reasons, including the need to replace experienced nurses who leave the field, especially as the median age of the R.N. population continues to rise; a growing elderly population; and an imbalance between the supply of and demand for qualified R.N.s. Nationally, employment of registered nurses is expected to grow by 27 percent in the decade leading up to 2012. Median annual earnings of registered nurses were \$50,660 in 2004; the top 10 percent earned \$68,860 and up (nationally, that number was \$71,170).

Pharmacists. In Utah, this is the second fastest growing profession among all occupations requiring a bachelor's degree or higher. Pharmacists held 1,870 jobs in 2002, a number slated to jump to 3,120 in 2012, a 67 percent increase. Competition for pharmacists is expected to be steep over the 2002-12 period due to the increased pharmaceutical needs of a larger and older population. In addition, the number of degrees granted in pharmacy is expected to be lower than the number of job openings created by employment growth and replacement needs. Nationally, the number of pharmacists is expected to grow by 30 percent. Median annual earnings of Utah's pharmacists in 2004 were \$86,140; the top 10 percent earned \$108,100 and up (nationally, that figure was \$112,530).

Tech Professions. Computer-related occupations are some of the fastest growing in Utah: four of the top 10 jobs among occupations requiring a college education are in professions related to computers.

Occupations like network systems/data communications analyst, computer software engineer, and database administrator will see growth in the decade leading up to 2012 of 50 percent and more. In addition to a fast growth rate, there will also be a large number of jobs: between new and replacement positions, some 14,400 computer professionals will need to be hired. Nationally, those with strong computer skills will also be in high demand: the number of software engineers is expected to grow by 46 percent. Median annual earnings in 2004 in Utah were \$48,080 for network systems analysts and \$69,540 for systems software engineers; the top 10 percent earned \$82,250 and \$104,940 and up, respectively (nationally, those figures were \$95,510 and \$119,750).

Physician Assistants. This is the fifth fastest growing profession in Utah among all occupations requiring a bachelor's degree or higher. Physician assistants held 410 jobs in 2002; that number is projected to grow to 660 in 2012, a 61 percent increase. Demand will be strong for P.A.s, particularly in places that have difficulty attracting physicians, such as rural areas and inner city clinics. In addition, physicians and institutions are expected to employ more P.A.s to provide primary care and assist with medical and surgical procedures. Nationally, the number of physician assistants is expected to grow by 49 percent: over 4,000 new physician assistants will be needed each year. Median annual earnings of physician assistants in Utah were \$67,650 in 2004; the top 10 percent earned \$112,650 and up (nationally, that figure was \$94,840).

Physical Therapists. This is the tenth fastest growing profession among all occupations requiring a bachelor's degree or higher in Utah. Physical therapists held 940 jobs in 2002, a number that will climb 52 percent to 1,430 in 2012. Thanks to a rapidly growing elderly population that's particularly vulnerable to chronic conditions requiring therapeutic services – as well as to the use of physical therapists at the workplace, to evaluate worksites, develop exercise programs, and teach safe work habits to employees – the demand for P.T.s will be strong throughout the 2002-12 decade. Nationally, the number of physical therapists is expected to grow by 36 percent. In Utah, median annual earnings of physical therapists were \$59,700 in 2004; the top 10 percent earned \$77,870 and up (nationally, that number was \$89,830).

Teachers. When it comes to the number of new hires, teaching holds four of the top six places among occupations requiring a bachelor's. Primary, secondary, and special ed teachers held 30,620 jobs in 2002 in Utah; that number will grow to 41,560 by 2012, a 36 percent increase. In the decade leading up to 2012, Utah will also have

to fill 4,500 new postsecondary teaching posts at its colleges and universities and make another 2,500 hires to cover retirements and separations. Nationally, the demand for teachers will vary, ranging from 38 percent for postsecondary teachers down to 9 percent for middle school teachers. Median annual earnings were \$39,690 for the state's primary teachers and \$40,970 for secondary in 2004; the top 10 percent earned \$54,770 and \$55,270 and up, respectively (nationally, those figures were \$68,930 and \$72,110).

The Regional Outlook

Seven of the top 10 states in terms of projected job growth are in the West: Nevada, Utah, Idaho, Arizona, Colorado, New Mexico, and California. In the 15 WICHE states, an additional 5.9 million jobs will be added in the decade leading up to 2012. While California has the greatest numerical growth in the region, with some 270,000 new jobs being created each year, the states seeing the fastest job growth are Nevada (41 percent), Utah (31 percent), Idaho (24 percent), and Arizona and Colorado (23 percent). Most of the region's fastest growing professions are in the health and computer sectors.

Sources: Workforce Report Data

All information used in the text and tables of this report is available from the Utah Department of Workforce Services (<http://jobs.utah.gov>) and the U.S. Department of Labor's Bureau of Labor Statistics (www.bls.gov/emp).

WICHE

WICHE and its 15 member states – Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, North Dakota, Oregon, South Dakota, Utah, Washington, and Wyoming – work collaboratively to expand educational access and excellence for all citizens of the West. By promoting innovation, cooperation, resource sharing, and sound public policy among states and institutions, WICHE strengthens higher education's contributions to the region's social, economic, and civic life.

For more information on WICHE's Student Exchange Programs, contact Margo Schultz at 303-541-0214 or mschultz@wiche.edu or write to:

WICHE/Student Exchange

PO Box 9752

Boulder, CO 80301-9752

Visit our website at www.wiche.edu.